A NEW SPECIES OF THE GENUS CERACLEA STEPHENS (TRICHOPTERA: LEPTOCERIDAE) FROM ZELYONYI ISLAND (SOUTH KURIL ISLANDS)

TATYANA I. AREFINA

Laboratory of Freshwater Hydrobiology, Institute of Biology and Soil Sciences, Far Eastern Branch of Russian Academy of Sciences, Vladivostok 690022, Russia.

Abstract.—Ceraclea valentinae NEW SPECIES from Zelyonyi Island (south Kuril Islands, Russia), belonging to the Ceraclea (C.) fulva group, is described and illustrated. This genus has not previously been recorded from Kuril Islands.

Keywords.—Insecta, Trichoptera, Leptoceridae, Ceraclea, Kuril Islands

A new caddisfly species, genus *Ceraclea*, was collected in 1994 from Zelyonyi Island, one of the southerly islands of the Kuril Islands archipelago. The specimen was collected during an expedition to the islands sponsored by the International Programs Division of the U.S. National Science Foundation and the Institute of Biology and Soil Sciences of Russian Academy of Sciences, Vladivostok. The genus *Ceraclea* has not previously been recorded from the Kuril Islands. The description of *Ceraclea valentinae* belonging to the *Ceraclea* (*C.*) *fulva* group (Morse 1975, Yang & Morse 1988), is presented here.

Ceraclea valentinae Arefina, NEW SPECIES

Types.—Holotype male; data: SOUTH KURIL ISLANDS (RUSSIA). Zelyonyi Island, western shore of Kamenskoye Lake, 6 Aug 1994, V. Teslenko; deposited: Zoological Institute of the Russian Academy of Sciences, Saint Petersburg.

Description.—Male (Holotype). Head and body brown with relatively long white and brown hairs intermixed. Forewing light yellow-brown, apically darker with light spots. Body length: 10.4 mm; forewing length: 13.2 mm. Male genitalia (Fig. 1): superior appendages almost semicircular, slightly fused basally, angled apically in dorsal view (Fig. 1b). Tergum X in lateral view (Fig. 1a) longer than superior appendages, upturned from middle, constricted apically, with rounded apex; in dorsal view tergum X broad at base, then abruptly tapering to distal part composed of setose triangular mesal lobe and pair of slender lateral lobes turned mesad from middle. The main body of inferior appendage (inf. app.) in lateral view straight, without ventro-basal lobe and with dark caudoventral surface; mesal ridge (me, rdg.) tapered apically, with two short strong spines on caudal surface (Fig. 1c); subapicodorsal lobe (sap. do.) elongate, bent caudad from base (Fig. 1a); harpago (har.) slightly longer than subapico-dorsal lobe, each with subapical triangular projection (Fig. 1c). Phallobase (phb.) with short ventral apex; parameres (par.) short, angled about 90 degrees from middle, bent ventro-caudad (Fig. 1d).

Female.—Unknown.

Diagnosis.—Within the C. (C.) fulva group, C. valentinae belongs to the subgroup including C. albimacula (Rambur), C. alboguttata (Hagen), C. fulva (Rambur), C. transversa (Hagen), C. latahensis (Smith) (Morse 1975, Yang & Morse 1988) and C. morsei (Kumanski 1991). All enumerated species have an unique synapomorphy of stout spine(s) on the caudal mesal ridge surface of each inferior appendage. C. valentinae most closely resembles C. albimacula, C. alboguttata

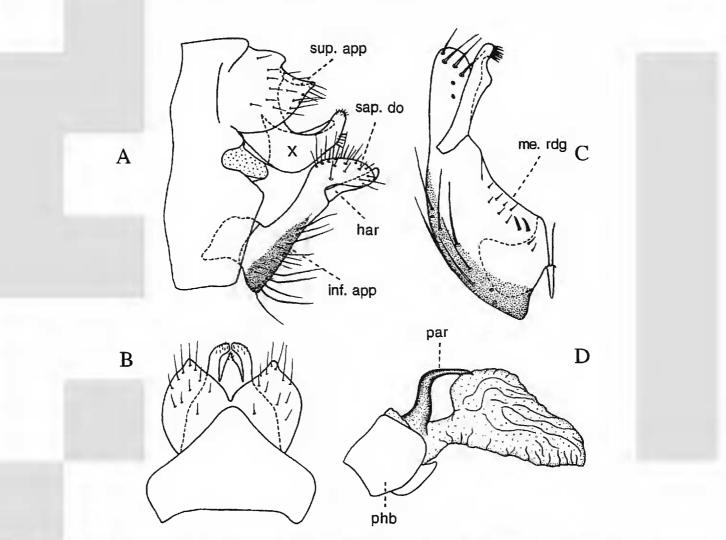


Figure 1. Male genitalia of *Ceraclea valentinae* NEW SPECIES in lateral (A) and dorsal (B) view; left inferior appendage (C) in ventro-caudal view; phallus (D) in lateral view. Abbreviations: har = harpago, inf. app. = inferior appendage, me. rdg. = mesal ridge of an inferior appendage, par = parameres, phb = phallobase; sap. do. = subapico-dorsal lobe of an inferior appendage, sup. app. = superior appendage, X = abdominal segment X.

and C. fulva in the broadly triangular subapical lobe of each harpago, in the short parameres and in the short stout spine(s) on the caudal mesal ridge surface of each inferior appendage. C. latahensis, C. transversa and C. morsei have single stout spines on the caudal mesal ridge surface, and these are much longer than the two spines in the new species. C. valentinae shares with C. fulva a pair of slender lateral lobes turned mesad of tergum X, and with C. alboguttata a similarly shaped triangular mesal lobe of tergum X. The superior appendages of the new species are shorter than tergum X and angled apically like those of C. alboguttata and C. albimacula. The new species shares with C. albimacula the dark caudo-ventral surface of the inferior appendage, and both species lack a basoventral lobe on each inferior appendage. C. valentinae differs from C. albimacula by its well developed triangular mesal lobe and unclavate lateral lobes of tergum X. The harpago is slightly longer than the subapico-dorsal lobe of each inferior appendage in the new species, but not in C. albimacula. The new species is distinguished from C. alboguttata and C. fulva by lacking a baso-ventral lobe on the inferior appendage, and from C. fulva by possessing an unbifid mesal lobe on tergum X. Tergum X in the new species extends well past the superior appendages, while in C. fulva tergum X is subequal to the superior appendages. C. valentinae differs from the other species mentioned above by possessing two short spines on the caudal mesal ridge surface and by having more strongly curved parameres.

Distribution.—Known only from the type locality in the south Kuril Islands. Etymology.—The species is named in honor of Valentina Teslenko, a specialist in Plecoptera (Institute of Biology and Soil Sciences, Russian Academy of Sciences), the collector of the new species.

Material Examined.—See Type.

ACKNOWLEDGMENT

I sincerely thank John C. Morse, Professor of Entomology, Director of the Clemson University Arthropod Collection, for his valuable advice and confirmation of the legitimacy of the new species. My sincere thanks are due to Yuri A. Tshistjakov, Institute of Biology and Soil Science, Vladivostok, for critical reading of the manuscript, and to Noboru Minakawa, University of Washington, Seattle, for his kind help in preparation of the manuscript. The work described here was supported in part by the International Programs Division and the Biological Sciences Directorate (Biotic Surveys and Inventories Program) of the U.S. National Science Foundation, Grant No. DEB-9400821, Theodore W. Pietsch, principal investigator.

LITERATURE CITED

Kumanski, K. 1991. Studies on the fauna of Trichoptera (Insecta) of Korea. II. Family Leptoceridae. Historia naturalis bulgarica, 3: 49–71.

Morse, J. C. 1975. A phylogeny and revision of the caddisfly genus *Ceraclea* (Trichoptera, Leptoceridae). Contributions of the American Entomological Institute, 11: 1–97.

Yang, L. & J. C. Morse. 1988. *Ceraclea* of the People's Republic of China (Trichoptera: Leptoceridae). Contributions of the American Entomological Institute, 23: 1–69.

Received 15 Dec 1995; Accepted 4 Nov 1996